

Application No. 10/556,918  
Amdt. Dated: November 29, 2007  
Reply to final Office Action Dated: October 23, 2007

## REMARKS/ARGUMENTS

The Examiner is thanked for the final Office Action mailed October 23, 2007.

The status of the application is as follows:

- Claims 1-20 are pending. Claims 7-20 are allowed.
- Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trotel (US 5,022,060) in view of Yu (US 6,094,473).

The rejection is discussed below.

### Allowed Claims

The Examiner is thanked for indicating that claims 7-20 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicant reserves the right to rewrite these claims as indicated by the Examiner at a later time if desired.

### The Rejection of Claims 1-6, 10, and 16 under 35 U.S.C. 103(a)

Claims 1-6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Trotel in view of Yu. This rejection should be withdrawn because the combination of Trotel and Yu does not teach or suggest all the limitations of the subject claims and, therefore, does not establish a *prima facie* case of obviousness with respect to claims 1-6.

To establish a *prima facie* case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2143.

Independent **claim 1** is directed towards a CT scanner that includes, *inter alia*, a means for generating an analog data signal that varies with an intensity of radiation traversing the examination region, a means for converting the analog data signal to a

digital data signal including aperiodic pulses varying in frequency with the intensity of the radiation traversing the examination region as the radiation source rotates about the examination region, and *a means for determining average radiation intensity in each data interval by counting the pulses of the digital data signal starting with a digital data signal pulse occurring in a preceding data interval and continuing to a digital data signal pulse occurring in a succeeding data interval.*

In the final Office Action, the Office asserts that Yu teaches a means for determining average radiation intensity in each data interval. However, claim 1 recites more than just a means for determining average radiation intensity in each data interval. Claim 1 recites a means for determining average radiation intensity in each data interval by counting the pulses of the digital data signal starting with a digital data signal pulse occurring in a preceding data interval and continuing to a digital data signal pulse occurring in a succeeding data interval. As stated in the MPEP, all the words in a claim must be considered in judging the patentability of that claim against the prior art. (MPEP §2143.03 citing *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970)). Thus, a rejection based on the above assertion is improper.

Furthermore, Yu does not teach or suggest that subject claim limitations. More particularly, Yu is directed towards an automatic x-ray exposure control system that automatically terminates the generation of an x-ray beam based on a pulse count. (See Abstract). Yu discloses a voltage-controlled oscillator that generates a digital frequency-modulated signal, which has a pulse rate that is frequency-modulated in proportion to the level of the radiation. (See column 5, lines 39-63). Yu also discloses a pulse counting circuit with a digital counter that counts pulses in the digital frequency-modulated signal as a pulse count value. The digital counter loads an exposure length parameter value into a counter register and generates a count match signal when the pulse count value corresponds to the exposure length parameter value. A processor generates an exposure termination signal in response to receiving the count match signal, and the exposure

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termination signal terminates the generation of the x-ray beam. (See column 6, lines 15-46).

Hence, Yu teaches an automatic x-ray exposure control system that counts pulses to determine when to terminate the generation of the x-ray beam. However, Yu does not teach or suggest using the pulse counting circuit to count the pulses in the digital frequency-modulated signal to determine an average radiation intensity in each data interval by counting the pulses starting with a pulse occurring in a preceding data interval and continuing to a pulse occurring in a succeeding data interval. Accordingly, this rejection should be withdrawn.

**Claims 2-5** depend from claim 1 and are allowable at least by virtue of their dependencies.

Independent **claim 6** is directed towards a method and recites limitations similar to those recited in claim 1. In particular, the method includes determining average radiation intensity in each data interval by counting the pulses of the digital data signal starting with a digital data signal pulse occurring in a preceding data interval and continuing to a digital data signal pulse occurring in a succeeding data interval. As such, the above discussion regarding claim 1 applies *mutatis mutandis* to claim 6. Therefore, this rejection should be withdrawn.

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**Conclusion**

In view of the foregoing, it is submitted that the claims distinguish patentably and non-obviously over the prior art of record. An early indication of allowability is earnestly solicited.

Respectfully submitted,

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